

REMARKS

Claims 1-12 are all the claims pending in the application; each of the claims has been rejected.

New claims 13 and 14 have been added. After entry of the Amendment, claims 1-14 will be pending.

Claims 1-4 and 11-12 have been amended to convert them into method claims.

Claims 11 and 12 have been amend to correct their improper multiple dependency and claims 13 and 14 have been added to recite the subject matter cancelled from claims 11 and 12, respectively.

Claims 5-10 have been amended to delete side groups defined for some of the variable positions in the compounds recited in the claims.

No new matter has been added. Entry of this amendment is earnestly solicited.

I. Election of Species

At page 2 of the Office Action, the Examiner states that the application contains claims directed to more than one species of the generic invention. Further, the Examiner asserts, these species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The Examiner notes that a provisional election was made with traverse to prosecute compound number 302 on page 72, table 1, of the specification, and claims 1 and 2. The Examiner requires affirmation of the election in reply to the Office Action.

In response, Applicants affirm the election, without traverse, to compound number 302 on page 72, table 1, of the specification, and in claims 1 and 2.

II. Rejection of Claims Under 35 U.S.C. §112

At page 4 of the Office Action, claims 1-12 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

The Examiner asserts that it is unclear whether Applicants are intending to claim a compound or a composition. The Examiner further states that claim 4 is a substantial duplicate of claims 1-3 and will therefore be objected to if claims 1-3 are found to be allowable. Similarly, the Examiner states that claims 11 and 12 are duplicates of claims 5-10.

In response, Applicants note that included herewith are amendments to the claims. These amendments clarify the invention in that claims 5-10 are directed to novel hydroxyformamidine derivatives and claims 1-4 and 11-14 are directed to methods of using those derivatives.

Applicants assert that the claims are now definite as written, and therefore respectfully request reconsideration and withdrawal of the rejections.

III. Rejection of Claims Under 35 U.S.C. §102

At page 6 of the Office Action, claim 1 is rejected under 35 U.S.C. §102(b) as being anticipated by any of six references cited by the Examiner.

In response, Applicants note that claims 1-4 and 11-14 recite new methods for using the hydroxyformamidine derivatives recited in claim 1 (claims 1-3, 11 and 13: a method of inhibiting production of 20-hydroxyeicosatetraenoic acid using the derivatives; claims 4, 12 and 14: a therapeutic method for treatment of a kidney disease, a cerebrovascular disease or a circulatory disease using the derivatives).

Applicants assert that none of the prior art references recited by the Examiner teach the methods recited in claims 1-4 and 11-14. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection with regard to these claims.

As to claims 5-10, Applicants have amended the claims to delete some of the side groups defined for variable positions in the compounds recited in these claims. In view of the deletion of these side groups, Applicants assert none of the compounds now recited in the claims is taught in the prior art. Applicants therefore assert that none of the prior art references recited by the Examiner teach the compounds recited in claims 5-10. Accordingly, Applicants also respectfully request reconsideration and withdrawal of the rejection with regard to claims 5-10.

IV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

SUGHRUE MION, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, D.C. 20037-3213
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

Respectfully submitted,



Drew Hissong
Registration No. 44,765

Date: November 21, 2002

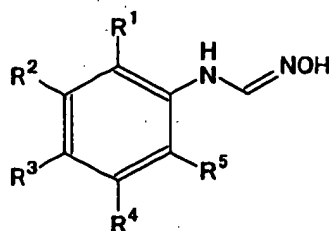
APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

1. (Amended) A method of inhibiting ~~An inhibitor for~~ production of 20-hydroxyeicosatetraenoic acid, comprising administering an effective amount of the, ~~as an effective ingredient,~~ a hydroxyformamidine derivative represented by the formula:



wherein R¹ to R⁵ are identical or different and represent a hydrogen atom; a hydroxyl group; a carboxyl group; a halogen atom; a C₁₋₁₄ alkyl group; a C₁₋₁₄ alkyl group substituted with 1 to 6 halogen atoms; a C₂₋₆ alkenyl group; a C₁₋₆ alkoxy C₁₋₆ alkyl group; a C₃₋₈ cycloalkyl C₁₋₆ alkyl group; a C₂₋₆ alkynyl group; a C₃₋₈ cycloalkyl group; a C₃₋₈ cycloalkoxy group; a C₂₋₁₀ alkanoyl group; a C₁₋₆ hydroxyalkyl group; a C₁₋₆ hydroxyalkyl group substituted with 1 to 6 halogen atoms; a C₂₋₆ alkoxy carbonyl group; a 3-phenyl-2-propenyloxycarbonyl group; a C₂₋₆ alkoxy carbonyl C₁₋₆ alkyl group; a di(C₁₋₆ alkyl)amino C₂₋₆ alkoxy carbonyl group; a mono- or di(C₁₋₆ alkyl)amino group; a C₂₋₁₀ alkanoylamino group; a C₂₋₆ alkanoylamino group substituted with a C₁₋₆ alkyl group; a benzoylamino group; a carbamoyl group; a carbamoyl group mono- or di-substituted with C₁₋₆ alkyl or phenyl groups; an N-(N',N'-di(C₁₋₆ alkyl)amino C₁₋₆ alkyl)carbamoyl group; a cyano group; a cyano C₁₋₆ alkyl group; a nitro group; a thiol group; a phenoxy group; a phenoxy group substituted with 1 to 3 substituents selected from the group

consisting of C₁₋₆ alkyl groups, C₁₋₆ alkoxy groups, and halogen atoms; a phenylthio group; a nitrophenylthio group; a C₁₋₆ alkylsulfonyl group; a phenylsulfonyl group; a C₁₋₆ alkylthio C₁₋₆ alkyl group; a phenylsulfonyl C₁₋₆ alkylthio wherein the benzene ring is substituted with 1 to 5 halogen atoms; a phenyl group; a benzyl group; a phenyl group substituted with 1 to 3 substituents selected from the group consisting of cyano groups, halogen atoms, C₁₋₆ alkyl groups, and C₁₋₆ alkoxy groups; a biphenyl group; an α -cyanobenzyl group; an α -cyanobenzyl group substituted with 1 to 5 halogen atoms; a benzyl group substituted with a bicyclo[2.2.1]-hept-5-en-2,3-dicarboximidyl group; a benzoyl group; a styryl group; a styryl group substituted with 1 to 5 substituents selected from the group consisting of C₁₋₆ alkoxy groups and di(C₁₋₆ alkyl)amino alkyl groups; a pyrrolidino group; a piperidino group; a morpholino group; a pyridyl group; a pyrimidinyl group; a pyrimidinyl group substituted with 1 to 3 substituents selected from the group consisting of C₁₋₆ alkyl groups and C₁₋₆ alkoxy groups; a phthalimidoyl group; a phthalimidoyl group substituted with 1 to 3 halogen atoms; an N-carbazolyl group; a dioxopiperidinyl group substituted with 1 to 3 C₁₋₆ alkyl groups; a phenylsulfonylamino group; a phenylsulfonylamino group substituted with 1 to 3 C₁₋₆ alkyl groups; a C₁₋₆ alkylaminosulfonyl C₁₋₆ alkyl group; a thiadiazolyl group; an oxadiazolyl group; an oxadiazolyl group substituted with a substituted phenyl group wherein the substituents in the substituted phenyl group are 1 to 3 substituents selected from the group consisting of halogen atoms, C₁₋₆ alkyl groups, and C₁₋₆ alkoxy groups; a pyrrolidinyl group; a pyrazolyl group; a pyrazolyl group substituted with 1 to 3 substituents selected from the group consisting of halogen atoms, C₁₋₆ alkyl groups, and trifluoromethyl groups; a furyl group; a furyl group substituted with 1 to 3 substituents selected from the group consisting of halogen atoms, C₁₋₆ alkyl groups, and C₂₋₆ alkoxycarbonyl groups; a

thienopyrimidinylthio group; a thienopyrimidinylthio group substituted with 1 to 3 C₁₋₆ alkyl groups; a thienopyridylthio group; a thienopyridylthio group substituted with 1 to 3 C₁₋₆ alkyl groups; a benzothiazolylthio group; a benzothiazolylthio group substituted with 1 to 3 halogen atoms; a group represented by the formula: -Y-(CR⁶¹R⁶²)_m-(CR⁶³R⁶⁴)_n-R⁷ [wherein Y represents an oxygen or sulfur atom; R⁶¹, R⁶², R⁶³, and R⁶⁴ are identical or different and represent a hydrogen atom, a halogen atom, a C₁₋₄ alkyl group, or a trifluoromethyl group; R⁷ represents a hydrogen atom; a halogen atom; a C₁₋₁₄ alkyl group; a C₃₋₈ cycloalkyl group; a C₂₋₁₀ alkenyl group; a C₂₋₆ alkynyl group; a phenyl group; a phenyl group substituted with 1 to 3 substituents selected from the group consisting of nitro groups, cyano groups, C₁₋₆ alkyl groups, C₁₋₆ alkoxy groups, C₁₋₆ alkylthio groups, phenyl groups, phenoxy groups, phenethyl groups, C₂₋₆ alkoxycarbonyl groups, and halogen atoms; a cyano group; a carboxyl group; a C₁₋₆ alkoxy group; a C₁₋₆ hydroxyalkyl group; a C₃₋₈ cycloalkoxy group; a C₁₋₆ alkoxy C₁₋₆ alkoxy group; a C₁₋₆ alkoxy C₁₋₆ alkoxy C₁₋₆ alkoxy group; a C₁₋₆ alkylthio group; a C₂₋₆ alkanoyloxy group; a C₂₋₆ alkanoyloxy C₁₋₆ alkyl group; a phenoxy group; a phenylthio group; an N-(C₁₋₆ alkyl)toluidino group; a pyrrolidino group; a piperidino group; a morpholino group; a pyridyl group; a pyridyl group substituted with a C₁₋₆ alkyl group; a piperidino group substituted with a C₁₋₆ alkyl group; a pyridyl group substituted with a C₁₋₆ alkoxy group; a pyrrolidino group substituted with a C₁₋₆ alkyl group; a morpholino group substituted with a C₁₋₆ alkyl group; a morpholinyl group; a morpholinyl group substituted with a C₁₋₆ alkyl group; a homomorpholinyl group; a thiomorpholino group; a thiomorpholino group substituted with a C₁₋₆ alkyl group; a thiomorpholinyl group; a thiomorpholinyl group substituted with a C₁₋₆ alkyl group; a piperadiny group; a piperadin-1-yl group substituted with a C₁₋₆ alkyl group at the 4-position; a

homopiperidinyl group; a homopiperidinyl group substituted with a C₁₋₆ alkyl group; a pyridylthio group; a quinolyl group; a furyl group; an oxetanyl group; an oxolanyl group; a dioxolanyl group; a dioxolanyl group substituted with a C₁₋₆ alkyl group; an oxanyl group; a dioxanyl group; a dioxanyl group substituted with a C₁₋₆ alkyl group; a benzodioxanyl group; a pyrrolidon-1-yl group; a pyrrolidinyl group; an N-(C₁₋₆ alkyl)pyrrolidinyl group; a piperidinyl group; an N-(C₁₋₆ alkyl)piperidinyl group; a pyrrolyl group; a thienyl group; a thiazolyl group; a thiazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups; a 2,6-purindion-7-yl group substituted with C₁₋₆ alkyl group(s); a furfuryl group; a di(C₁₋₆ alkyl)amino group; a C₂₋₆ alkoxy carbonyl group; or a di(C₁₋₆ alkyl)amino C₁₋₆ alkoxy group; m is an integer of 1 to 6; and n is an integer of 0 to 6]; or a group represented by the formula: -SO₂NR⁸R⁹ [wherein R⁸ and R⁹ are identical or different and represent a hydrogen atom, a C₁₋₁₀ alkyl group, a C₂₋₆ alkanoyl group, an isoxazolyl group, an isoxazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a thiadiazolyl group, a thiadiazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a thiazolyl group, a thiazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a pyridyl group, a pyridyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a pyrimidinyl group, a pyrimidinyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a pyrimidinyl group substituted with 1 to 3 C₁₋₆ alkoxy groups, a pyridazinyl group, a pyridazinyl group substituted with 1 to 3 C₁₋₆ alkoxy groups, an indazolyl group, or a carbamoyl group mono- or di-substituted with C₁₋₆ alkyl groups, or alternatively, taken together with the nitrogen atom to which they are bonded, form a 3,5-dioxopiperadino group, a pyrrolidinyl group, a piperidino group, or a morpholino group], or alternatively,

the two groups adjacent to each other of R¹ to R⁵, taken together with the benzene ring to which they are bonded, form a phthalimide ring; a phthalimide ring substituted with a C₁₋₆ alkyl

group; an indole ring; an indane ring; an indazole ring; a benzotriazole ring; an S,S-dioxobenzothiophene ring; a 2,3-dihydroimidazo[2,1-b]benzothiazole ring; a dibenzofuran ring; a dibenzofuran ring substituted with a C₁₋₆ alkoxy group; a fluorene ring; a fluorene ring substituted with a halogen atom; a pyrene ring; a carbostyryl ring; a carbostyryl ring substituted with a C₁₋₆ alkyl group; a naphthalene ring; a naphthalene ring substituted with 1 to 3 substituents selected from the group consisting of cyano groups, halogen atoms, nitro groups, and C₁₋₆ alkyl groups; a 1,2,3,4-tetrahydronaphthalene ring; a quinoline ring; a quinoline ring substituted with a C₁₋₆ alkyl group; an isoquinoline ring; a 2-oxo- α -chromene ring; a 2-oxo- α -chromene ring substituted with 1 to 3 substituents selected from the group consisting of C₁₋₆ alkyl groups, C₁₋₆ alkoxy groups, and C₁₋₆ alkoxy C₁₋₆ alkyl groups; a cinnolin ring; a cinnolin ring substituted with a C₁₋₆ alkyl group; a phthalazindione ring; a benzothiazol ring; a benzothiazol ring substituted with a C₁₋₆ alkyl group; a benzodioxorane ring; or a benzobutyrolactone ring,
or a pharmaceutically-acceptable salt thereof.

2. (Amended) The method of inhibiting inhibitor for production of 20-hydroxyeicosatetraenoic acid, comprising administering an effective amount of the, ~~as an effective ingredient,~~ a hydroxyformamidine derivative, according to claim 1 ~~Claim 1~~, wherein R¹ to R⁵ are identical or different and represent a hydrogen atom; a hydroxyl group; a carboxyl group; a halogen atom; a C₁₋₁₄ alkyl group; a C₁₋₁₄ alkyl group substituted with 1 to 6 halogen atoms; a C₂₋₆ alkynyl group; a C₃₋₈ cycloalkyl group; a C₃₋₈ cycloalkoxy group; a C₂₋₁₀ alkanoyl group; a C₁₋₆ hydroxyalkyl group; a C₁₋₆ hydroxyalkyl group substituted with 1 to 6 halogen atoms; a C₂₋₆ alkoxycarbonyl group; a 3-phenyl-2-propenyloxycarbonyl group; a C₂₋₆ alkoxycarbonyl C₁₋₆ alkyl group; a di(C₁₋₆ alkyl)amino C₂₋₆ alkoxycarbonyl group; a mono- or

di(C₁₋₆ alkyl)amino group; a C₂₋₁₀ alkanoylamino group; a C₂₋₆ alkanoylamino group substituted with a C₁₋₆ alkyl group; a benzoylamino group; a carbamoyl group; a carbamoyl group mono- or di-substituted with C₁₋₆ alkyl or phenyl groups; an N-(N',N'-di(C₁₋₆ alkyl)amino C₁₋₆ alkyl)carbamoyl group; a cyano group; a cyano C₁₋₆ alkyl group; a nitro group; a thiol group; a phenoxy group; a phenoxy group substituted with 1 to 3 substituents selected from the group consisting of C₁₋₆ alkyl groups, C₁₋₆ alkoxy groups, and halogen atoms; a phenylthio group; a nitrophenylthio group; a C₁₋₆ alkylsulfonyl group; a phenylsulfonyl group; a C₁₋₆ alkylthio C₁₋₆ alkyl group; a phenylsulfonyl C₁₋₆ alkylthio group wherein the benzene ring is substituted with 1 to 5 halogen atoms; a phenyl group; a benzyl group; a phenyl group substituted with 1 to 3 substituents selected from the group consisting of cyano groups, halogen atoms, C₁₋₆ alkyl groups, and C₁₋₆ alkoxy groups; a biphenyl group; an α -cyanobenzyl group; an α -cyanobenzyl group substituted with 1 to 5 halogen atoms; a benzyl group substituted with a bicyclo[2.2.1]-hept-5-en-2,3-dicarboxyimidyl group; a benzoyl group; a styryl group; a styryl group substituted with 1 to 5 substituents selected from the group consisting of C₁₋₆ alkoxy groups and di(C₁₋₆ alkyl)amino alkyl groups; a pyrrolidino group; a piperidino group; a morpholino group; a pyridyl group; a pyrimidinyl group; a pyrimidinyl group substituted with 1 to 3 substituents selected from the group consisting of C₁₋₆ alkyl groups and C₁₋₆ alkoxy groups; a phthalimidoyl group; a phthalimidoyl group substituted with 1 to 3 halogen atoms; an N-carbazolyl group; a dioxopiperidinyl group substituted with 1 to 3 C₁₋₆ alkyl groups; a phenylsulfonylamino group; a phenylsulfonylamino group substituted with 1 to 3 C₁₋₆ alkyl groups; a C₁₋₆ alkylaminosulfonyl C₁₋₆ alkyl group; a thiadiazolyl group; an oxadiazolyl group; an oxadiazolyl group substituted with a substituted phenyl group wherein the substituents in the substituted phenyl group are 1 to

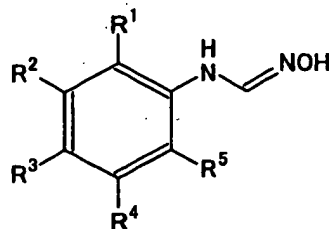
3 substituents selected from the group consisting of halogen atoms, C₁₋₆ alkyl groups, and C₁₋₆ alkoxy groups; a pyrrolidinyl group; a pyrazolyl group; a pyrazolyl group substituted with 1 to 3 substituents selected from the group consisting of halogen atoms, C₁₋₆ alkyl groups, and trifluoromethyl groups; a furyl group; a furyl group substituted with 1 to 3 substituents selected from the group consisting of halogen atoms, C₁₋₆ alkyl groups, and C₂₋₆ alkoxy carbonyl groups; a thienopyrimidinylthio group; a thienopyrimidinylthio group substituted with 1 to 3 C₁₋₆ alkyl groups; a thienopyridylthio group; a thienopyridylthio group substituted with 1 to 3 C₁₋₆ alkyl groups; a benzothiazolylthio group; a benzothiazolylthio group substituted with 1 to 3 halogen atoms; or a group represented by the formula: -Y-(CR⁶¹R⁶²)_m-(CR⁶³R⁶⁴)_n-R⁷ [wherein Y represents an oxygen or sulfur atom; R⁶¹, R⁶², R⁶³, and R⁶⁴ are identical or different and represent a hydrogen atom, a halogen atom, a C₁₋₄ alkyl group, or a trifluoromethyl group; R⁷ represents a hydrogen atom, a halogen atom, a C₁₋₁₄ alkyl group; a C₃₋₈ cycloalkyl group; a C₂₋₁₀ alkenyl group; a C₂₋₆ alkynyl group; a phenyl group; a phenyl group substituted with 1 to 3 substituents selected from the group consisting of nitro groups, cyano groups, C₁₋₆ alkyl groups, C₁₋₆ alkoxy groups, C₁₋₆ alkylthio groups, phenyl groups, phenoxy groups, phenethyl groups, C₂₋₆ alkoxy carbonyl groups, and halogen atoms; a cyano group; a carboxyl group; a C₁₋₆ alkoxy group; a C₁₋₆ hydroxyalkyl group; a C₃₋₈ cycloalkoxy group; a C₁₋₆ alkoxy C₁₋₆ alkoxy group; a C₁₋₆ alkoxy C₁₋₆ alkoxy C₁₋₆ alkoxy group; a C₁₋₆ alkylthio group; a C₂₋₆ alkanoyloxy group; a C₂₋₆ alkanoyloxy C₁₋₆ alkyl group; a phenoxy group; a phenylthio group; an N-(C₁₋₆ alkyl)toluidino group; a pyrrolidino group; a piperidino group; a morpholino group; a pyridyl group; a pyridyl group substituted with a C₁₋₆ alkyl group; a piperidino group substituted with a C₁₋₆ alkyl group; a pyridyl group substituted with a C₁₋₆ alkoxy group; a pyrrolidino group substituted with a C₁₋₆

alkyl group; a morpholino group substituted with a C₁₋₆ alkyl group; a morpholinyl group; a morpholinyl group substituted with a C₁₋₆ alkyl group; a homomorpholinyl group; a thiomorpholino group; a thiomorpholino group substituted with a C₁₋₆ alkyl group; a thiomorpholinyl group; a thiomorpholinyl group substituted with a C₁₋₆ alkyl group; a piperadinyl group; a piperadin-1-yl group substituted with a C₁₋₆ alkyl group at the 4-position; a homopiperidinyl group; a homopiperidinyl group substituted with a C₁₋₆ alkyl group; a pyridylthio group; a quinolyl group; a furyl group; an oxetanyl group; an oxolanyl group; a dioxolanyl group; a dioxolanyl group substituted with a C₁₋₆ alkyl group; an oxanyl group; a dioxanyl group; a dioxanyl group substituted with a C₁₋₆ alkyl group; a benzodioxanyl group; a pyrrolidon-1-yl group; a pyrrolidinyl group; an N-(C₁₋₆ alkyl)pyrrolidinyl group; a piperidinyl group; an N-(C₁₋₆ alkyl)piperidinyl group; a pyrrolyl group; a thienyl group; a thiazolyl group; a thiazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups; a 2,6-purindion-7-yl group substituted with C₁₋₆ alkyl group(s); a furfuryl group; a di(C₁₋₆ alkyl)amino group; a C₂₋₆ alkoxy carbonyl group; or a di(C₁₋₆ alkyl)amino C₁₋₆ alkoxy group; m is an integer of 1 to 6; and n is an integer of 0 to 6], or a pharmaceutically-acceptable salt thereof.

3. (Amended) The method of inhibiting ~~inhibitor for~~ production of 20-hydroxyeicosatetraenoic acid, comprising administering an effective amount of the, ~~as an effective ingredient,~~ a hydroxyformamidine derivative or a pharmaceutically-acceptable salt thereof, according to Claim 2, wherein R¹, R², R⁴, and R⁵ represent hydrogen atoms.

4. (Amended) A therapeutic method for treatment of a kidney disease, a cerebrovascular disease or a circulatory disease, said method comprising administering to a patient having a kidney disease, a cerebrovascular disease or a circulatory disease an effective

~~amount of the The inhibitor for production of 20-hydroxyeicosatetraenoic acid, according to any one of Claims 1 to 3, which is a therapeutic agent for kidney diseases, cerebrovascular diseases, or circulatory diseases~~ hydroxyformamidine derivative represented by the formula:



wherein R¹ to R⁵ are identical or different and represent a hydrogen atom; a hydroxyl group; a carboxyl group; a halogen atom; a C₁₋₁₄ alkyl group; a C₁₋₁₄ alkyl group substituted with 1 to 6 halogen atoms; a C₂₋₆ alkenyl group; a C₁₋₆ alkoxy C₁₋₆ alkyl group; a C₃₋₈ cycloalkyl C₁₋₆ alkyl group; a C₂₋₆ alkynyl group; a C₃₋₈ cycloalkyl group; a C₃₋₈ cycloalkoxy group; a C₂₋₁₀ alkanoyl group; a C₁₋₆ hydroxyalkyl group; a C₁₋₆ hydroxyalkyl group substituted with 1 to 6 halogen atoms; a C₂₋₆ alkoxy carbonyl group; a 3-phenyl-2-propenyloxycarbonyl group; a C₂₋₆ alkoxy carbonyl C₁₋₆ alkyl group; a di(C₁₋₆ alkyl)amino C₂₋₆ alkoxy carbonyl group; a mono- or di(C₁₋₆ alkyl)amino group; a C₂₋₁₀ alkanoylamino group; a C₂₋₆ alkanoylamino group substituted with a C₁₋₆ alkyl group; a benzoylamino group; a carbamoyl group; a carbamoyl group mono- or di-substituted with C₁₋₆ alkyl or phenyl groups; an N-(N',N'-di(C₁₋₆ alkyl)amino C₁₋₆ alkyl)carbamoyl group; a cyano group; a cyano C₁₋₆ alkyl group; a nitro group; a thiol group; a phenoxy group; a phenoxy group substituted with 1 to 3 substituents selected from the group consisting of C₁₋₆ alkyl groups, C₁₋₆ alkoxy groups, and halogen atoms; a phenylthio group; a nitrophenylthio group; a C₁₋₆ alkylsulfonyl group; a phenylsulfonyl group; a C₁₋₆ alkylthio C₁₋₆ alkyl group; a phenylsulfonyl C₁₋₆ alkylthio wherein the benzene ring is substituted with 1 to 5 halogen atoms; a phenyl group; a benzyl group; a phenyl group substituted with 1 to 3

substituents selected from the group consisting of cyano groups, halogen atoms, C₁₋₆ alkyl groups, and C₁₋₆ alkoxy groups; a biphenyl group; an α -cyanobenzyl group; an α -cyanobenzyl group substituted with 1 to 5 halogen atoms; a benzyl group substituted with a bicyclo[2.2.1]-hept-5-en-2,3-dicarboxyimidyl group; a benzoyl group; a styryl group; a styryl group substituted with 1 to 5 substituents selected from the group consisting of C₁₋₆ alkoxy groups and di(C₁₋₆ alkyl)amino alkyl groups; a pyrrolidino group; a piperidino group; a morpholino group; a pyridyl group; a pyrimidinyl group; a pyrimidinyl group substituted with 1 to 3 substituents selected from the group consisting of C₁₋₆ alkyl groups and C₁₋₆ alkoxy groups; a phthalimidoyl group; a phthalimidoyl group substituted with 1 to 3 halogen atoms; an N-carbazolyl group; a dioxopiperidinyl group substituted with 1 to 3 C₁₋₆ alkyl groups; a phenylsulfonylamino group; a phenylsulfonylamino group substituted with 1 to 3 C₁₋₆ alkyl groups; a C₁₋₆ alkylaminosulfonyl C₁₋₆ alkyl group; a thiadiazolyl group; an oxadiazolyl group; an oxadiazolyl group substituted with a substituted phenyl group wherein the substituents in the substituted phenyl group are 1 to 3 substituents selected from the group consisting of halogen atoms, C₁₋₆ alkyl groups, and C₁₋₆ alkoxy groups; a pyrrolidinyl group; a pyrazolyl group; a pyrazolyl group substituted with 1 to 3 substituents selected from the group consisting of halogen atoms, C₁₋₆ alkyl groups, and trifluoromethyl groups; a furyl group; a furyl group substituted with 1 to 3 substituents selected from the group consisting of halogen atoms, C₁₋₆ alkyl groups, and C₂₋₆ alkoxy carbonyl groups; a thienopyrimidinylthio group; a thienopyrimidinylthio group substituted with 1 to 3 C₁₋₆ alkyl groups; a thienopyridylthio group; a thienopyridylthio group substituted with 1 to 3 C₁₋₆ alkyl groups; a benzothiazolylthio group; a benzothiazolylthio group substituted with 1 to 3 halogen atoms; a group represented by the formula: -Y-(CR⁶¹R⁶²)_m-(CR⁶³R⁶⁴)_n-R⁷ [wherein Y represents

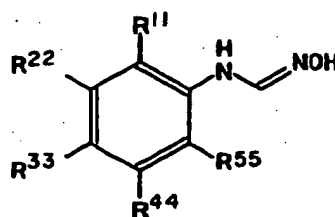
an oxygen or sulfur atom; R⁶¹, R⁶², R⁶³, and R⁶⁴ are identical or different and represent a hydrogen atom, a halogen atom, a C₁₋₄ alkyl group, or a trifluoromethyl group; R⁷ represents a hydrogen atom; a halogen atom; a C₁₋₁₄ alkyl group; a C₃₋₈ cycloalkyl group; a C₂₋₁₀ alkenyl group; a C₂₋₆ alkynyl group; a phenyl group; a phenyl group substituted with 1 to 3 substituents selected from the group consisting of nitro groups, cyano groups, C₁₋₆ alkyl groups, C₁₋₆ alkoxy groups, C₁₋₆ alkylthio groups, phenyl groups, phenoxy groups, phenethyl groups, C₂₋₆ alkoxycarbonyl groups, and halogen atoms; a cyano group; a carboxyl group; a C₁₋₆ alkoxy group; a C₁₋₆ hydroxyalkyl group; a C₃₋₈ cycloalkoxy group; a C₁₋₆ alkoxy C₁₋₆ alkoxy group; a C₁₋₆ alkoxy C₁₋₆ alkoxy C₁₋₆ alkoxy group; a C₁₋₆ alkylthio group; a C₂₋₆ alkanoyloxy group; a C₂₋₆ alkanoyloxy C₁₋₆ alkyl group; a phenoxy group; a phenylthio group; an N-(C₁₋₆ alkyl)toluidino group; a pyrrolidino group; a piperidino group; a morpholino group; a pyridyl group; a pyridyl group substituted with a C₁₋₆ alkyl group; a piperidino group substituted with a C₁₋₆ alkyl group; a pyridyl group substituted with a C₁₋₆ alkoxy group; a pyrrolidino group substituted with a C₁₋₆ alkyl group; a morpholino group substituted with a C₁₋₆ alkyl group; a morpholinyl group; a morpholinyl group substituted with a C₁₋₆ alkyl group; a homomorpholinyl group; a thiomorpholino group; a thiomorpholino group substituted with a C₁₋₆ alkyl group; a thiomorpholinyl group; a thiomorpholinyl group substituted with a C₁₋₆ alkyl group; a piperadinyl group; a piperadin-1-yl group substituted with a C₁₋₆ alkyl group at the 4-position; a homopiperidinyl group; a homopiperidinyl group substituted with a C₁₋₆ alkyl group; a pyridylthio group; a quinolyl group; a furyl group; an oxetanyl group; an oxolanyl group; a dioxolanyl group; a dioxolanyl group substituted with a C₁₋₆ alkyl group; an oxanyl group; a dioxanyl group; a dioxanyl group substituted with a C₁₋₆ alkyl group; a benzodioxanyl group; a

pyrrolidon-1-yl group; a pyrrolidinyl group; an N-(C₁₋₆ alkyl)pyrrolidinyl group; a piperidinyl group; an N-(C₁₋₆ alkyl)piperidinyl group; a pyrrolyl group; a thienyl group; a thiazolyl group; a thiazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups; a 2,6-purindion-7-yl group substituted with C₁₋₆ alkyl group(s); a furfuryl group; a di(C₁₋₆ alkyl)amino group; a C₂₋₆ alkoxy carbonyl group; or a di(C₁₋₆ alkyl)amino C₁₋₆ alkoxy group; m is an integer of 1 to 6; and n is an integer of 0 to 6]; or a group represented by the formula: -SO₂NR⁸R⁹ [wherein R⁸ and R⁹ are identical or different and represent a hydrogen atom, a C₁₋₁₀ alkyl group, a C₂₋₆ alkanoyl group, an isoxazolyl group, an isoxazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a thiadiazolyl group, a thiadiazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a thiazolyl group, a thiazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a pyridyl group, a pyridyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a pyrimidinyl group, a pyrimidinyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a pyrimidinyl group substituted with 1 to 3 C₁₋₆ alkoxy groups, a pyridazinyl group, a pyridazinyl group substituted with 1 to 3 C₁₋₆ alkoxy groups, an indazolyl group, or a carbamoyl group mono- or di-substituted with C₁₋₆ alkyl groups, or alternatively, taken together with the nitrogen atom to which they are bonded, form a 3,5-dioxopiperadino group, a pyrrolidinyl group, a piperidino group, or a morpholino group], or alternatively,

the two groups adjacent to each other of R¹ to R⁵, taken together with the benzene ring to which they are bonded, form a phthalimide ring; a phthalimide ring substituted with a C₁₋₆ alkyl group; an indole ring; an indane ring; an indazole ring; a benzotriazole ring; an S,S-dioxobenzothiophene ring; a 2,3-dihydroimidazo[2,1-b]benzothiazole ring; a dibenzofuran ring; a dibenzofuran ring substituted with a C₁₋₆ alkoxy group; a fluorene ring; a fluorene ring substituted with a halogen atom; a pyrene ring; a carbostyryl ring; a carbostyryl ring substituted

with a C₁₋₆ alkyl group; a naphthalene ring; a naphthalene ring substituted with 1 to 3 substituents selected from the group consisting of cyano groups, halogen atoms, nitro groups, and C₁₋₆ alkyl groups; a 1,2,3,4-tetrahydronaphthalene ring; a quinoline ring; a quinoline ring substituted with a C₁₋₆ alkyl group; an isoquinoline ring; a 2-oxo- α -chromene ring; a 2-oxo- α -chromene ring substituted with 1 to 3 substituents selected from the group consisting of C₁₋₆ alkyl groups, C₁₋₆ alkoxy groups, and C₁₋₆ alkoxy C₁₋₆ alkyl groups; a cinnolin ring; a cinnolin ring substituted with a C₁₋₆ alkyl group; a phthalazindione ring; a benzothiazol ring; a benzothiazol ring substituted with a C₁₋₆ alkyl group; a benzodioxorane ring; or a benzobutyrolactone ring,
or a pharmaceutically-acceptable salt thereof.

5. (Twice amended) A hydroxyformamidine derivative represented by the formula:



wherein at least one of R¹¹ to R⁵⁵ represents a C₅₋₁₄ alkyl group; a C₂₋₆ alkenyl group; a C₃₋₈ cycloalkyl C₁₋₆ alkyl group; a C₂₋₆ alkynyl group; a C₃₋₈ cycloalkyl group; a C₃₋₈ cycloalkoxy group; a C₂₋₁₀ alkanoyl group; a C₁₋₆ hydroxyalkyl group; a C₁₋₆ hydroxyalkyl group substituted with 1 to 6 halogen atoms; a C₂₋₆ alkoxy carbonyl group; a 3-phenyl-2-propenyloxycarbonyl group; a C₂₋₆ alkoxy carbonyl C₁₋₆ alkyl group; a di(C₁₋₆ alkyl)amino C₂₋₆ alkoxy carbonyl group; ~~a mono- or di(C₁₋₆ alkyl)amino group~~; a C₂₋₁₀ alkanoylamino group; a C₂₋₆ alkanoylamino group substituted with a C₁₋₆ alkyl group; a benzoylamino group; a carbamoyl group; a carbamoyl group mono- or di-substituted with C₁₋₆ alkyl or phenyl groups; an N-(N', N'-di(C₁₋₆ alkyl)amino C₁₋₆ alkyl)carbamoyl group; a cyano group; a cyano C₁₋₆ alkyl group; a C₁₋₆ alkylsulfonyl group; a

phenylsulfonyl group; a C₁₋₆ alkylthio C₁₋₆ alkyl group; a phenylsulfonyl C₁₋₆ alkylthio group wherein the benzene ring is substituted with 1 to 5 halogen atoms; a phenyl group; a benzyl group; a phenyl group substituted with 1 to 3 substituents selected from the group consisting of cyano groups, halogen atoms, C₁₋₆ alkyl groups, and C₁₋₆ alkoxy groups; a biphenyl group; an α -cyanobenzyl group; an α -cyanobenzyl group substituted with 1 to 5 halogen atoms; a benzyl group substituted with a bicyclo[2.2.1]-hept-5-en-2,3-dicarboxyimidyl group; ~~a benzoyl group; a~~ styryl group; a styryl group substituted with 1 to 5 substituents selected from the group consisting of C₁₋₆ alkoxy groups and di(C₁₋₆ alkyl)amino alkyl groups; a pyrrolidin-1-yl ~~pyrrolidino~~ group; a piperidino group; a morpholino group; a pyridyl group; a pyrimidinyl group; a pyrimidinyl group substituted with 1 to 3 substituents selected from the group consisting of C₁₋₆ alkyl groups and C₁₋₆ alkoxy groups; a phthalimidoyl group; a phthalimidoyl group substituted with 1 to 3 halogen atoms; an N-carbazolyl group; a dioxopiperidinyl group substituted with 1 to 3 C₁₋₆ alkyl groups; a phenylsulfonylamino group; a phenylsulfonylamino group substituted with 1 to 3 C₁₋₆ alkyl groups; a C₁₋₆ alkylaminosulfonyl C₁₋₆ alkyl group; a thiadiazolyl group; an oxadiazolyl group; an oxadiazolyl group substituted with a substituted phenyl group wherein the substituents in the substituted phenyl group are 1 to 3 substituents selected from the group consisting of halogen atoms, C₁₋₆ alkyl groups, and C₁₋₆ alkoxy groups; a pyrrolidinyl group; a pyrazolyl group; a pyrazolyl group substituted with 1 to 3 substituents selected from the group consisting of halogen atoms, C₁₋₆ alkyl groups, and trifluoromethyl groups; a furyl group; a furyl group substituted with 1 to 3 substituents selected from the group consisting of halogen atoms, C₁₋₆ alkyl groups, and C₂₋₆ alkoxycarbonyl groups; a thienopyrimidinylthio group; a thienopyrimidinylthio group substituted with 1 to 3 C₁₋₆ alkyl groups; a thienopyridylthio group;

a thienopyridylthio group substituted with 1 to 3 C₁₋₆ alkyl groups; a benzothiazolylthio group; a benzothiazolylthio group substituted with 1 to 3 halogen atoms; a group represented by the formula: -Y-(CR⁶¹R⁶²)_m-(CR⁶³R⁶⁴)_n-R⁷⁷ [wherein Y represents an oxygen or sulfur atom; R⁶¹, R⁶², R⁶³, and R⁶⁴ are identical or different and represent a hydrogen atom, a halogen atom, a C₁₋₄ alkyl group, or a trifluoromethyl group; R⁷⁷ represents a halogen atom; a C₄₋₁₄ alkyl group; a C₃₋₈ cycloalkyl group; a C₂₋₁₀ alkenyl group; a C₂₋₆ alkynyl group; a phenyl group; a phenyl group substituted with 1 to 3 substituents selected from the group consisting of nitro groups, cyano groups, C₁₋₆ alkyl groups, C₁₋₆ alkoxy groups, C₁₋₆ alkylthio groups, phenyl groups, phenoxy groups, phenethyl groups, C₂₋₆ alkoxycarbonyl groups, and halogen atoms; a cyano group; a carboxyl group; a C₁₋₆ alkoxy group; a C₁₋₆ hydroxyalkyl group; a C₃₋₈ cycloalkoxy group; a C₁₋₆ alkoxy C₁₋₆ alkoxy group; a C₁₋₆ alkoxy C₁₋₆ alkoxy C₁₋₆ alkoxy group; a C₁₋₆ alkylthio group; a C₂₋₆ alkanoyloxy group; a C₂₋₆ alkanoyloxy C₁₋₆ alkyl group; a phenoxy group; a phenylthio group; an N-(C₁₋₆ alkyl)toluidino group; a pyrrolidin-1-yl ~~pyrrolidino~~ group; a piperidino group; a morpholino group; a pyridyl group; a pyridyl group substituted with a C₁₋₆ alkyl group; a piperidino group substituted with a C₁₋₆ alkyl group; a pyridyl group substituted with a C₁₋₆ alkoxy group; a pyrrolidin-1-yl ~~pyrrolidino~~ group substituted with a C₁₋₆ alkyl group; a morpholino group substituted with a C₁₋₆ alkyl group; a morpholinyl group; a morpholinyl group substituted with a C₁₋₆ alkyl group; a homomorpholinyl group; a thiomorpholino group; a thiomorpholino group substituted with a C₁₋₆ alkyl group; a thiomorpholinyl group; a thiomorpholinyl group substituted with a C₁₋₆ alkyl group; a piperazinyl ~~piperadiny~~ group; a piperazin~~piperadin~~-1-yl group substituted with a C₁₋₆ alkyl group at the 4-position; a homopiperidinyl group; a homopiperidinyl group substituted with a C₁₋₆ alkyl group; a

pyridylthio group; a quinolyl group; a furyl group; an oxetanyl group; an oxolanyl group; a dioxolanyl group; a dioxolanyl group substituted with a C₁₋₆ alkyl group; an oxanyl group; a dioxanyl group; a dioxanyl group substituted with a C₁₋₆ alkyl group; a benzodioxanyl group; a pyrrolidon-1-yl group; a pyrrolidinyl group; an N-(C₁₋₆ alkyl)pyrrolidinyl group; a piperidinyl group; an N-(C₁₋₆ alkyl)piperidinyl group; a pyrrolyl group; a thienyl group; a thiazolyl group; a thiazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups; a 2,6-purindion-7-yl group substituted with at least one C₁₋₆ alkyl group; a furfuryl group; a di(C₁₋₆ alkyl)amino group; a C₂₋₆ alkoxycarbonyl group; or a di(C₁₋₆ alkyl)amino C₁₋₆ alkoxy group; m is an integer of 1 to 6; and n is an integer of 0 to 6]; or a group represented by the formula: -SO₂NR⁸R⁹ [wherein R⁸ and R⁹ are identical or different and represent a hydrogen atom, a C₁₋₁₀ alkyl group, a C₂₋₆ alkanoyl group, an isoxazolyl group, an isoxazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a thiadiazolyl group, a thiadiazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a thiazolyl group, a thiazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a pyridyl group, a pyridyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a pyrimidinyl group, a pyrimidinyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a pyrimidinyl group substituted with 1 to 3 C₁₋₆ alkoxy groups, a pyridazinyl group, a pyridazinyl group substituted with 1 to 3 C₁₋₆ alkoxy groups, an indazolyl group, or a carbamoyl group mono- or di-substituted with C₁₋₆ alkyl groups, or alternatively, taken together with the nitrogen atom to which they are bonded, form a 3,5-dioxopiperazin-1-yl ~~dioxopiperadino~~ group, a pyrrolidinyl group, a piperidino group, or a morpholino group], or alternatively,

the two groups adjacent to each other of R¹¹ to R⁵⁵, taken together with the benzene ring to which they are bonded, form a phthalimide ring; a phthalimide ring substituted with a C₁₋₆

alkyl group; an indole ring; an indane ring; an indazole ring; a benzotriazole ring; an S,S-dioxobenzothiophene ring; a 2,3-dihydroimidazo[2,1-b]benzothiazole ring; a dibenzofuran ring; a dibenzofuran ring substituted with a C₁₋₆ alkoxy group; a fluorene ring; a fluorene ring substituted with a halogen atom; a pyrene ring; a carbostyryl ring; a carbostyryl ring substituted with a C₁₋₆ alkyl group; a naphthalene ring; a naphthalene ring substituted with 1 to 3 substituents selected from the group consisting of cyano groups, halogen atoms, nitro groups, and C₁₋₆ alkyl groups; a 1,2,3,4-tetrahydronaphthalene ring; a quinoline ring; a quinoline ring substituted with a C₁₋₆ alkyl group; an isoquinoline ring; a 2-oxo- α -chromene ring; a 2-oxo- α -chromene ring substituted with 1 to 3 substituents selected from the group consisting of C₁₋₆ alkyl groups, C₁₋₆ alkoxy groups, and C₁₋₆ alkoxy C₁₋₆ alkyl groups; a cinnolin ring; a cinnolin ring substituted with a C₁₋₆ alkyl group; a phthalazindione ring; a benzothiazol ring; a benzothiazol ring substituted with a C₁₋₆ alkyl group; a benzodioxorane ring; and a benzobutyrolactone ring, and the remaining groups of R¹¹ to R⁵⁵ are identical or different and represent a hydrogen atom, a C₁₋₄ alkyl group, a C₁₋₄ alkoxy group, a trifluoromethyl group, a nitro group, or a halogen atom,

or a pharmaceutically-acceptable salt thereof.

6. (Amended) The hydroxyformamidine derivative or a pharmaceutically-acceptable salt thereof, according to Claim 5, wherein at least one of R¹¹ to R⁵⁵ represents ~~a C₅₋₁₄ alkyl group~~; a C₃₋₈ cycloalkoxy group; ~~a C₂₋₆ alkynyl group~~; a C₃₋₈ cycloalkyl group; ~~a C₂₋₁₀ alkanoyl group~~; a C₁₋₆ hydroxyalkyl group; a C₁₋₆ hydroxyalkyl group substituted with 1 to 6 halogen atoms; a C₂₋₆ alkoxy carbonyl group; a 3-phenyl-2-propenyloxy carbonyl group; a C₂₋₆ alkoxy carbonyl C₁₋₆ alkyl group; a di(C₁₋₆ alkyl)amino C₂₋₆ alkoxy carbonyl group; ~~a mono- or di(C₁₋₆ alkyl)amino group~~; a C₂₋₁₀ alkanoylamino group; a C₂₋₆ alkanoylamino group substituted

with a C₁₋₆ alkyl group; a benzoylamino group; a carbamoyl group; a carbamoyl group mono- or di-substituted with C₁₋₆ alkyl or phenyl groups; an N-(N',N'-di(C₁₋₆ alkyl)amino C₁₋₆ alkyl)carbamoyl group; a cyano group; a cyano C₁₋₆ alkyl group; a C₁₋₆ alkylsulfonyl group; a phenylsulfonyl group; a C₁₋₆ alkylthio C₁₋₆ alkyl group; a phenylsulfonyl C₁₋₆ alkylthio group wherein the benzene ring is substituted with 1 to 5 halogen atoms; a phenyl group; a benzyl group; a phenyl group substituted with 1 to 3 substituents selected from the group consisting of cyano groups, halogen atoms, C₁₋₆ alkyl groups, and C₁₋₆ alkoxy groups; a biphenyl group; an α -cyanobenzyl group; an α -cyanobenzyl group substituted with 1 to 5 halogen atoms; a benzyl group substituted with a bicyclo[2.2.1]-hept-5-en-2,3-dicarboxyimidyl group; ~~a benzoyl group~~; a styryl group; a styryl group substituted with 1 to 5 substituents selected from the group consisting of C₁₋₆ alkoxy groups and di(C₁₋₆ alkyl)amino alkyl groups; a pyrrolidin-1-yl ~~pyrrolidine~~ group; a piperidino group; a morpholino group; a pyridyl group; a pyrimidinyl group; a pyrimidinyl group substituted with 1 to 3 substituents selected from the group consisting of C₁₋₆ alkyl groups and C₁₋₆ alkoxy groups; a phthalimidoyl group; a phthalimidoyl group substituted with 1 to 3 halogen atoms; an N-carbazolyl group; a dioxopiperidinyl group substituted with 1 to 3 C₁₋₆ alkyl groups; a phenylsulfonylamino group; a phenylsulfonylamino group substituted with 1 to 3 C₁₋₆ alkyl groups; a C₁₋₆ alkylaminosulfonyl C₁₋₆ alkyl group; a thiadiazolyl group; an oxadiazolyl group; an oxadiazolyl group substituted with a substituted phenyl group wherein the substituents in the substituted phenyl group are 1 to 3 substituents selected from the group consisting of halogen atoms, C₁₋₆ alkyl groups, and C₁₋₆ alkoxy groups; a pyrrolidinyl group; a pyrazolyl group; a pyrazolyl group substituted with 1 to 3 substituents selected from the group consisting of halogen atoms, C₁₋₆ alkyl groups, and trifluoromethyl groups; a furyl group; a furyl

group substituted with 1 to 3 substituents selected from the group consisting of halogen atoms, C₁₋₆ alkyl groups, and C₂₋₆ alkoxy carbonyl groups; a thienopyrimidinylthio group; a thienopyrimidinylthio group substituted with 1 to 3 C₁₋₆ alkyl groups; a thienopyridylthio group; a thienopyridylthio group substituted with 1 to 3 C₁₋₆ alkyl groups; a benzothiazolylthio group; a benzothiazolylthio group substituted with 1 to 3 halogen atoms; or a group represented by the formula: -SO₂NR⁸R⁹ [wherein R⁸ and R⁹ are identical or different and represent a hydrogen atom, a C₁₋₁₀ alkyl group, a C₂₋₆ alkanoyl group, an isoxazolyl group, an isoxazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a thiadiazolyl group, a thiadiazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a thiazolyl group, a thiazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a pyridyl group, a pyridyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a pyrimidinyl group, a pyrimidinyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a pyrimidinyl group substituted with 1 to 3 C₁₋₆ alkoxy groups, a pyridazinyl group, a pyridazinyl group substituted with 1 to 3 C₁₋₆ alkoxy groups, an indazolyl group, or a carbamoyl group mono- or di-substituted with C₁₋₆ alkyl groups, or alternatively, taken together with the nitrogen atom to which they are bonded, form a 3,5-dioxopiperadino group, a pyrrolidinyl group, a piperidino group, or a morpholino group], or alternatively,

the two groups adjacent to each other of R¹¹ to R⁵⁵, taken together with the benzene ring to which they are bonded, form a phthalimide ring; a phthalimide ring substituted with a C₁₋₆ alkyl group; an indole ring; an indane ring; an indazole ring; a benzotriazole ring; an S,S-dioxobenzothiophene ring; a 2,3-dihydroimidazo[2,1-b]benzothiazole ring; a dibenzofuran ring; a dibenzofuran ring substituted with a C₁₋₆ alkoxy group; a fluorene ring; a fluorene ring substituted with a halogen atom; a carbostyryl ring; a carbostyryl ring substituted

with a C₁₋₆ alkyl group; a naphthalene ring; a naphthalene ring substituted with 1 to 3 substituents selected from the group consisting of cyano groups, halogen atoms, nitro groups, and C₁₋₆ alkyl groups; a 1,2,3,4-tetrahydronaphthalene ring; a quinoline ring; a quinoline ring substituted with a C₁₋₆ alkyl group; an isoquinoline ring; a 2-oxo— α -chromene ring; a 2-oxo— α -chromene ring substituted with 1 to 3 substituents selected from the group consisting of C₁₋₆ alkyl groups, C₁₋₆ alkoxy groups, and C₁₋₆ alkoxy C₁₋₆ alkyl groups; a cinnolin ring; a cinnolin ring substituted with a C₁₋₆ alkyl group; a phthalazindione ring; a benzothiazol ring; a benzothiazol ring substituted with a C₁₋₆ alkyl group; a benzodioxorane ring; and a benzobutyrolactone ring, and the remaining groups of R¹¹ to R⁵⁵ are identical or different and represent a hydrogen atom, a C₁₋₄ alkyl group, a C₁₋₄ alkoxy group, a trifluoromethyl group, a nitro group, or a halogen atom.

7. (Amended) The hydroxyformamidine derivative or a pharmaceutically-acceptable salt thereof, according to Claim 6, wherein at least one of R¹¹ to R⁵⁵ represents a C₅₋₁₄ alkyl group; a C₂₋₆ alkynyl group; a C₃₋₈ cycloalkyl group; a C₃₋₈ cycloalkoxy group; a C₂₋₁₀ alkanoyl group; a C₁₋₆ hydroxyalkyl group; a C₁₋₆ hydroxyalkyl group substituted with 1 to 6 halogen atoms; a C₂₋₆ alkoxy carbonyl group; a 3-phenyl-2-propenyloxycarbonyl group; a C₂₋₆ alkoxy carbonyl C₁₋₆ alkyl group; a di(C₁₋₆ alkyl)amino C₂₋₆ alkoxy carbonyl group; a mono- or di(C₁₋₆ alkyl)amino group; a C₂₋₁₀ alkanoylamino group; a C₂₋₆ alkanoylamino group substituted with a C₁₋₆ alkyl group; a carbamoyl group; a carbamoyl group mono- or di-substituted with C₁₋₆ alkyl or phenyl groups; an N-(N',N'-di(C₁₋₆ alkyl)amino C₁₋₆ alkyl)carbamoyl group; a cyano group; a cyano C₁₋₆ alkyl group; a C₁₋₆ alkylsulfonyl group; a phenylsulfonyl group; a C₁₋₆ alkylthio C₁₋₆ alkyl group; a phenyl group; a benzyl group; a phenyl group substituted with 1 to 3 substituents selected from the group consisting of cyano groups, halogen atoms, C₁₋₆ alkyl

groups, and C₁₋₆ alkoxy groups; a biphenyl group; an α -cyanobenzyl group; an α -cyanobenzyl group substituted with 1 to 5 halogen atoms; a benzoyl group; a pyrrolidino group; a piperidino group; a morpholino group; a pyridyl group; a pyrimidinyl group; a pyrimidinyl group substituted with 1 to 3 substituents selected from the group consisting of C₁₋₆ alkyl groups and C₁₋₆ alkoxy groups; a pyrrolidinyl group; a pyrazolyl group; a pyrazolyl group substituted with 1 to 3 substituents selected from the group consisting of halogen atoms, C₁₋₆ alkyl groups, and trifluoromethyl groups; a furyl group; a furyl group substituted with 1 to 3 substituents selected from the group consisting of halogen atoms, C₁₋₆ alkyl groups, and C₂₋₆ alkoxy carbonyl groups; or a group represented by the formula: -SO₂NR⁸R⁹ [wherein R⁸ and R⁹ are identical or different and represent a hydrogen atom, a C₁₋₁₀ alkyl group, a C₂₋₆ alkanoyl group, an isoxazolyl group, an isoxazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a thiadiazolyl group, a thiadiazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a thiazolyl group, a thiazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a pyridyl group, a pyridyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a pyrimidinyl group, a pyrimidinyl group substituted with 1 to 3 C₁₋₆ alkyl groups, a pyrimidinyl group substituted with 1 to 3 C₁₋₆ alkoxy groups, a pyridazinyl group, a pyridazinyl group substituted with 1 to 3 C₁₋₆ alkoxy groups, an indazolyl group, or a carbamoyl group mono- or di-substituted with C₁₋₆ alkyl groups, or alternatively, taken together with the nitrogen atom to which they are bonded, form a 3,5-dioxopiperazin-1-yl dioxopiperadino-group, a pyrrolidinyl group, a piperidino group, or a morpholino group] and the remaining groups of R¹¹ to R⁵⁵ are identical or different and represent a hydrogen atom, a C₁₋₄ alkyl group, a C₁₋₄ alkoxy group, a trifluoromethyl group, a nitro group, or a halogen atom.

8. (Amended) The hydroxyformamidine derivative or a pharmaceutically-acceptable salt thereof, according to Claim 5, wherein at least one of R¹¹ to R⁵⁵ represents a group represented by the formula: -Y-(CR⁶¹R⁶²)_m-(CR⁶³R⁶⁴)_n-R⁷⁷ [wherein Y represents an oxygen or sulfur atom; R⁶¹, R⁶², R⁶³, and R⁶⁴ are identical or different and represent a hydrogen atom, a halogen atom, a C₁₋₄ alkyl group, or a trifluoromethyl group; R⁷⁷ represents a halogen atom, a C₁₋₄ alkyl group, a C₃₋₈ cycloalkyl group, a C₂₋₁₀ alkenyl group, a C₂₋₆ alkynyl group, a phenyl group; a phenyl group substituted with 1 to 3 substituents selected from the group consisting of nitro groups, cyano groups, C₁₋₆ alkyl groups, C₁₋₆ alkoxy groups, C₁₋₆ alkylthio groups, phenyl groups, phenoxy groups, phenethyl groups, C₂₋₆ alkoxycarbonyl groups, and halogen atoms; a cyano group; a carboxyl group; a C₁₋₆ alkoxy group; a C₁₋₆ hydroxyalkyl group; a C₃₋₈ cycloalkoxy group; a C₁₋₆ alkoxy C₁₋₆ alkoxy group; a C₁₋₆ alkoxy C₁₋₆ alkoxy C₁₋₆ alkoxy group; a C₁₋₆ alkylthio group; a C₂₋₆ alkanoyloxy group; a C₂₋₆ alkanoyloxy C₁₋₆ alkyl group; a phenoxy group; a phenylthio group; an N-(C₁₋₆ alkyl)toluidino group; a pyrrolidin-1-yl ~~pyrrolidino~~ group; a piperidino group; a morpholino group; a pyridyl group; a pyridyl group substituted with a C₁₋₆ alkyl group; a piperidino group substituted with a C₁₋₆ alkyl group; a pyridyl group substituted with a C₁₋₆ alkoxy group; a pyrrolidin-1-yl ~~pyrrolidino~~ group substituted with a C₁₋₆ alkyl group; a morpholino group substituted with a C₁₋₆ alkyl group; a morpholinyl group; a morpholinyl group substituted with a C₁₋₆ alkyl group; a homomorpholinyl group; a thiomorpholino group; a thiomorpholino group substituted with a C₁₋₆ alkyl group; a thiomorpholinyl group; a thiomorpholinyl group substituted with a C₁₋₆ alkyl group; a piperazinyl ~~piperadinyl~~ group; a piperazin-1-yl ~~piperadin-1-yl~~ group substituted with a C₁₋₆ alkyl group at the 4-position; a homopiperidinyl group; a homopiperidinyl group substituted with a C₁₋₆ alkyl group; a

pyridylthio group; a quinolyl group; a furyl group; an oxetanyl group; an oxolanyl group; an dioxolanyl group; a dioxolanyl group substituted with a C₁₋₆ alkyl group; an oxanyl group; a dioxanyl group; a dioxanyl group substituted with a C₁₋₆ alkyl group; a benzodioxanyl group; a pyrrolidon-1-yl group; a pyrrolidinyl group; an N-(C₁₋₆ alkyl)pyrrolidinyl group; a piperidinyl group; an N-(C₁₋₆ alkyl)piperidinyl group; a pyrrolyl group; a thienyl group; a thiazolyl group; a thiazolyl group substituted with 1 to 3 C₁₋₆ alkyl groups; a 2,6-purindion-7-yl group substituted with C₁₋₆ alkyl group(s); a furfuryl group; a di(C₁₋₆ alkyl)amino group; a C₂₋₆ alkoxy carbonyl group; or a di(C₁₋₆ alkyl)amino C₁₋₆ alkoxy group; m is an integer of 1 to 6; and n is an integer of 0 to 6], and the remaining groups of R¹¹ to R⁵⁵ are identical or different and represent a hydrogen atom, a C₁₋₄ alkyl group, a C₁₋₄ alkoxy group, a trifluoromethyl group, a nitro group, or a halogen atom.

9. (Amended) The hydroxyformamidine derivative or a pharmaceutically-acceptable salt thereof, according to Claim 8, wherein at least one of R¹¹ to R⁵⁵ represents a group represented by the formula: -O-(CR⁶¹R⁶²)_m-(CR⁶³R⁶⁴)_n-R⁷⁷ [wherein R⁶¹, R⁶², R⁶³, and R⁶⁴ are identical or different and represent a hydrogen atom, a halogen atom, a C₁₋₄ alkyl group, or a trifluoromethyl group; R⁷⁷ represents a di(C₁₋₆ alkyl)amino group; a di(C₁₋₆ alkyl)amino C₁₋₆ alkoxy group; a piperidyl group; a piperidyl piperidinyl group substituted with a C₁₋₆ alkyl group; a piperidino group; a piperidino group substituted with a C₁₋₆ alkyl group; a pyridyl group; a pyridyl ~~pyridinyl~~ group substituted with a C₁₋₆ alkyl group; a pyridyl ~~pyridinyl~~ group substituted with a C₁₋₆ alkoxy group; a pyridylthio group; ~~a pyrrolidino group; a pyrrolidino group substituted with a C₁₋₆ alkyl group;~~ a pyrrolidon-1-yl group; a pyrrolidinyl group; a pyrrolidinyl group substituted with a C₁₋₆ alkyl group; a pyrrolyl group; a thienyl group; a thiazolyl group; a

morpholino group; a morpholino group substituted with a C₁₋₆ alkyl group; a morpholinyl group; a morpholinyl group substituted with a C₁₋₆ alkyl group; a homomorpholinyl group; a thiomorpholino group; a thiomorpholino group substituted with a C₁₋₆ alkyl group; a thiomorpholinyl group; a thiomorpholinyl group substituted with a C₁₋₆ alkyl group; a piperazinyl ~~piperadinyl~~-group; piperazina-piperadin-1-yl group substituted with a C₁₋₆ alkyl group at the 4-position; a homopiperidinyl group; or a homopiperidinyl group substituted with a C₁₋₆ alkyl group; m is an integer of 1 to 6; and n is an integer of 0 to 6], and the remaining groups of R¹¹ to R⁵⁵ are identical or different and represent a hydrogen atom, a C₁₋₄ alkyl group, a C₁₋₄ alkoxy group, a trifluoromethyl group, a nitro group, or a halogen atom.

11. (Amended) A method of inhibiting ~~An inhibitor for production of 20-hydroxyeicosatetraenoic acid, comprising administering an effective amount of~~, ~~as an effective ingredient,~~ the hydroxyformamidine derivative or a pharmaceutically-acceptable salt thereof according to any one of ~~claims~~ Claims 5 to 9 ~~10~~.

12. (Amended) A therapeutic method for treatment of a kidney disease, a cerebrovascular disease, or a circulatory disease, said method comprising administering to a patient having a kidney disease, a cerebrovascular disease, or a circulatory disease an effective amount of the hydroxyformamidine derivative or a pharmaceutically-acceptable salt thereof according to any one of claims 5 to 9 ~~The inhibitor for production of 20-hydroxyeicosatetraenoic acid, according to Claim 11, which is a therapeutic agent for kidney diseases, cerebrovascular diseases, or circulatory diseases.~~

Claims 13-14 are added as new claims.